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REPORT

ON THE

SANITARY CONDITION

OF THE

MALTON URBAN SANITARY DISTRICT

FOR THE YEAR 1900.

BY

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THE SANITARY CONDITION

OF THE

MALTON URBAN SANITARY DISTRICT

DURING 1900.

REPORT OF THE MEDICAL OFFICER OF HEALTH TO THE SANITARY COMMITTEE.

Area of the District.—The area of the District is 4,130 acres.

Physical Features and General Character of the District.—The town of Malton has a southern aspect and is picturesquely situated upon an eminence of the Howardian range of hills, a portion of which here form a part of the southern boundary of the historic Vale of Pickering; at the foot of the town flows the River Derwent in its course to the Vale of York; still further south are the Yorkshire Wolds; on the North the Vale of Pickering stretches to the distant Moorlands, whilst the Wolds are to the East, and the Howardian Hills to the West. The town itself is in no wise hilly, nevertheless there are elevations of a physical character, to be found in the East and West Mounts. Yet, in spite of the great advantages of its situation, Malton is one of those old-fashioned Yorkshire towns that has not marched with the so-called "march of progress." From its earliest days, at the time when the Brigantes—the first inhabitants of Yorkshire—occupied the site, through the Saxon and Norman periods down to the present time, it has probably never been of less importance than it is at the present day, but this observation is comparative only with its past vigourous history, and what it has lost of the din and smoke of a bustling town is amply compensated for by the purity of its atmosphere, the even tone of its everyday life, and the orderly sequence of its events. Interesting and variable as historical retrospects are, we must be content to skip much that might throw light upon the present day conditions of Malton. There are, however, some matters to which attention should be drawn, such as the navigation of the Derwent, formerly extending beyond Yedingham but now going no further than Malton. Prior to 1703, it was only navigable so far as the tide ran, which would be somewhat below Stamford Bridge. The tides now flow to Sutton Lock, 74 miles from the sea, where their further progress—which is very small even in the high spring tides—is impeded by the Weir. In the first year of the reign of Queen Anne, an Act of Parliament was obtained for making the river navigable to Malton. This was done by the construction of locks at Salton, Stamford Bridge, Buttercrambe, Howsham and Kirkham Abbey. This navigation scheme was carried forward to Yedingham in 1805, a total distance of 49½ miles from the river's mouth, which opens into the Ouse at Barmby-on-the-Marsh. The navigation of the river belonged to Earl Fitzwilliam, and was leased by his ancestor, the Marquess of Rockingham, to one Wm. Fenton for 21 years, commencing October, 1755, and was afterwards re-leased by Earl Fitzwilliam to Thomas and James Fenton, their lease expiring in 1805. From that time it remained in the hands of the Fitzwilliams, until the family sold its rights to the North-Eastern Railway Company when that company was constructing its railways in this part of the country. Canal boats, chiefly laden with coal, still come up the river to discharge their cargoes at Malton, but such boats are rare visitors and serve only to remind the observer of a once busy navigation. The decay of the navigation brought about a change in the occupations of a portion of the inhabitants of the town, and many trades which formerly existed have ceased to do so; the same may be said of offices formerly existing in the town, Malton being no longer a borough, but simply an Urban District. Coming to more recent times, we find agriculture declining from the commanding position it once held, and the town's activity considerably curtailed. Malton is an agricultural town pure and simple, and whatsoever is inimical to the industry of agriculture is prejudicial to the interests of the District. But the town of Malton has suffered loss not only from external, but from internal causes; few facilities have been given for the building of cottages for the working classes, none for the building of freehold cottages or houses of a better type, whilst the few freeholds there are might be counted on the finger tips, yet Malton held a considerable portion of freeholds at a not far distant date. These remarks may serve to throw light upon the decrease in population.

With freehold land available, the town would rise again to something like its old importance, for it cannot be disputed that it is one of the most healthy towns in the United Kindgom, since its situation and climate meet even the most exacting requirements of conditions influencing health. Situate on the main line, midway between York and Scarboro', amid the most perfect scenic and historic surroundings, there should be no bar placed to its progress by mere pecuniary considerations.

Geological Features.—There is so much of importance from a sanitary standpoint bound up with the geology of any given district that I must record in a popular way, and so far as I am able, the chief geological features of this district.

It is with the Western half of the Vale of Pickering that we may chiefly concern ourselves. Here the Corallian Rocks face each other on either side of the Vale, with the Kimmeridge Clay enclosed between them. If we trace the Kimmeridge Clay, we shall find that Malton is situate on a peninsular of Lower and Middle Oolite jutting out upon the sea of Kimmeridge Clay, which enters largely into the formation of the Vale of Pickering. Commencing then at Gilling Gap, which is the longest of the two great inlets of Kimmeridge Clay which afford access to the Vale of Pickering from the West, and which may be said to divide the Howardians from the roots of the Moorland Range, and here we must note the two tremendous E. and W. faults which have produced the Gap; the most Southerly of these two faults constitutes the Northern boundary of the Howardians for miles, and has always been regarded by Mr. Fox Strangways as the master fault of this district. This is the fault which passes close to Old Malton. There are two parallel faults which lie to the South of New Malton; but for purposes of description, the Old Malton fault may be called the North fault; that which passes Lady Well the Middle fault; crossing the clay flat of Norton, situate between Malton and Whitewall, we again find the Corallian Limestones (M.O.), this is the South fault.

Commencing at the Old Malton borehole, 468ft. deep, we find blue clay; 1,000ft. to the South, Corallian rock is struck after passing through 28ft. of superficial beds, this is at the well in Westgate. The Old Malton or North fault lies somewhere between, and the hade must be unusually steep. We are now crossing the peninsula of limestone on which Malton is situated, and following a line from the well in Westgate to Highfield Road Quarry, thence to the Highbeck Springs, near Whitewall.

After leaving the Highfield Road Quarry, the rock is indicated further South by the Lady Well, utilized as the water supply to the Malton Urban District. Another boring on the Norton side of the river failed to reach the bottom of the blue clay at 400ft., hence we may place a fault here (Middle fault). Crossing the flat between Malton and Whitewall, we again find the Corallian limestones, and here is the line of the Whitewall or South fault, which bounds the Langton Wold ridge on the North, and the effects of which may be very well seen at the Settrington Lime Quarry. Near Whitewall is the Highbeck Spring, where the underground drainage of Langton Wold is forced to the surface by the stiff blue clay, as is the case with so many of the springs or kelds around the Vale of Pickering, where the percolating waters of the porous and often fractured Corallian Rocks are jammed by these great faults against the Kimmeridge Clay.

In order to realize how thoroughly Malton is situate on a tongue of Corallian Rock in a sea of Kimmeridge Clay, the North faults may be traced. The North fault crosses the river near the Doodles, and as far East as the last exposure of the Coralline Oolite near Norton Parks; beyond this point its extent is a matter of conjecture, as we are now landed in the clay flat between Norton and Scagglethorpe, we must now trace the Middle fault from this point in a Westerly direction past the Lady Well. This fault has had more to do with the structure of New Malton than either of the others. There can be no doubt that the Cliff overhanging Castlegate represents the face of this fault, eaten back by weathering, since the actual fault at Russell's Brewery is about 40ft South of the centre of Castlegate. At the Railway Bridge (Station) the river bed is coincident with it, and continues thus for a short distance, whence the fault probably runs close to the escarpment past Musley Bank, beyond which, in the direction of Hildenley, it splits up into more than one ramification.

The South fault crosses the river near Cherry Island, and its effects are mainly traceable in the derangement of beds about Nod Hill and Westerdale (Castle Howard).

I regret being unable to furnish you with a map of the district.

Population.—For the purposes of this report an estimate is required of the number of persons living in the District at Midsummer 1900. The estimate for 1900 is 4,684 persons.

Births and Deaths.—The returns of the local Registrar during the year 1900 recorded 124 births and 92 deaths. Of these 12 do not belong to the Malton Urban Sanitary District. The natural increase in the population is therefore 42.

Birth-rates.—There were 124 births registered during the year 1900, giving a birth-rate of 26.47 per thousand. In 1899 the birth-rate was 27.32 per thousand. The number of illegitimate births for the year is 15; of these 6 do not belong to the district.

Death Rates.—The number of the whole of the deaths registered during the year 1900 was 92, giving a gross rate of 19·64 per thousand, from this must be deducted the non-residents. The corrected or nett rate is therefore 17.07. The Infantile Mortality for the same period being 161.29 per thousand births registered.

Zymotic Diseases.—The deaths from Zymotic Diseases during the year number, 4 viz.: Measles 2, Whooping Cough 1, Diarrhœa 1.

Zymotic Death-rate for the year is 0.85 per thousand, in 1899 it was 1·92 per thousand.

Inquest.—One inquest has been held during the year, in a case of drowning (suicide.)

Statistical Tables—The following tables are in accordance with the requirements of the Local Government Board.

In Table I is stated for the whole district the number and rates of births, and of deaths under one year, and at all ages, and the data on which the nett death-rate is based.

In Table II. the births and deaths are classified according to localities for purposes of comparison.

Table III. provides for the number of cases notified during the year, classified according to age of patients and localities.

Table IV. provides for deaths during the year from various causes, classified according to ages and localities.

TABLE I. BIRTHS AND DEATHS (Whole District.)

	Population estimated to Middle of each Year.	Births.		Deaths under One Year of Age.		Deaths at all Ages. Total.		Deaths in Public Institutions.	Deaths of Non-residents registered in District.	Deaths of residents registered beyond District	Deaths at all Ages. Nett.	
		Number.	Rate*	Number.	Rate per 1000 births registered.	Number.	Rate*				Number.	Rate*
1	2	3	4	5	6	7	8	9	10	11	12	13
Averages for years 1890-1899.	4828	129	26·88	17	138·24	82	17·06	7	4		82	17·06
1900.	4684	124	26·47	18	161·29	92	19·64	20	12		84	17·07

* Rates calculated per 1,000 of estimated population.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the snbstraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non residents" is meant persons brought into the district on account of illness, and dying there; and by the term "Residents" is meant persons who have been taken out of the district on account of illness, and have died elsewhere.

TABLE II. BIRTHS AND DEATHS (Localities.)

NAMES OF LOCALITIES.	Whole District.				St. Mary's Ward.				St. Michael's				St. Leonard's				Workhouse.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year	Population estimated to middle of each year.	Births registered.	Deaths at all Ages	Deaths under 1 year.
Averages of Years 1890 to 1899	4820	129	83	17	878	24	11	2	1750	35	25	4	0772	62	39	11	74	9	11	1
1990 ……..	4684	124	92	18	874	20	16	4	1746	39	21	2	2004	56	35	12	74	9	20	

The Classification of Death Causes.—The causes of death, as they appear in the following, are systematically arranged.

TABLE IV.

Causes of, and Ages at, Death during year 1900.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.					DEATHS IN LOCALITIES (AT ALL AGES).			DEATHS IN PUBLIC INSTITUTIONS.
	Under 1.	1 and under 5	5 and under 15	25 and under 65	65 and upwards.	St. Mary's	St. Michaels	St. Leonards	
Measles	1	1				2			
Whooping-cough	1							1	
Epidemic Influenza				1				1	
Diarrhœa				1					1
Phthisis			2	3	1	1	2	1	2
Other tubercular diseases			2	1			1	2	
Cancer, maligant disease				2	2	1	1	1	1
Bronchitis		1		1	2	1	1	2	
Pneumonia	2	1		4	2		2	3	4
Other diseases of Respiratory organs	1					1			
Alcoholism Cirrhosis of liver				1			1		
Premature birth	2							2	
Heart diseases				3	8	1	3	3	4
Suicides			1			1			
All other causes	11	1		8	25	8	10	19	8
All causes	18	4	5	25	40	16	21	35	20

Notification of Diseases.—The cases notified during the year appear in the subjoined tablular return, and also in the schedule which accompanies this report in conformity with the requirements of the Local Government Board :—

TABLE III. **Cases of Infectious Disease notified during the Year 1900.**

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT. At Ages—Years. 5 to 15	15 to 25	25 to 65	TOTAL CASES NOTIFIED IN EACH LOCALITY. St. Mary's.	St. Michael's.	St. Leonard's.	Workhouse.	NO HOSPITAL.
Diphtheria ...	1	..	..	..	..	1	..	Verified by Bacteriological Exam.
Erysipelas....	..	..	1	..	..	..	1	
Scarlet fever .	13	..	..	2	6	5	..	Mild Type.
Enteric fever ..	..	1	..	..	..	1	..	Imported from York.
Totals........	14	1	1	2	6	7	1	

Of the cases reported in the above table I may remark that the Typhoid was imported from York, the Diphtheria was slight, and that one case only of Erysipelas is a remarkably low average for a year's record. On the other hand the Scarlatina cases have been troublesome in the difficulties experienced in trying to trace them, there being absolutely no connection of the cases in this district. I have, however, a strong suspicion that cases existed in the neighbourhood of Norton anterior to June, when the first case was notified to me, and when it is taken into consideration that many of the children from Norton attend Malton Schools I think there is some probability of this infection having been conveyed by Scholars.

Epidemic Influenza.—During the month of January, there was a slight prevalence of Epidemic Influenza characterized by a greater number of cases with milder symptoms and a lighter mortality than marked the invasions of previous years. The disease had spent itself in February.

Scarlatina.—This disease has been present in sporadic form since July, and of the mildest possible type, indeed I have reason to believe that many cases were not notified by parents from their belief that the cases were simply "feverish colds." The first case reported was a scholar at a private school, the premises were visited by myself in company with the Sanitary Inspector, and the school voluntarily closed for a period of six weeks during which time it was cleansed and disinfected.

Enteric Fever.—The only case reported during the year was one imported from York. In this connection I would point out that no death from typhoid (enteric) fever has occurred in your district since 1891, a distinct proof of the sufficiency of your Water Supply.

Diphtheria.—Only one case of diphtheria has been notified during the year, and in this case I was able to take immediate steps, bacteriological examination serving to confirm the diagnosis. the case ending in complete recovery.

Procedure in Cases of Infectious Diseases.—It often happens that cases of infectious disease come under the notice of Sanitary Officials in the absence of special notification, these cases are dealt with in the same manner as those notified by the medical practitioners resident in the district.

Upon a case being notified, the premises at the address given are duly visited and inspected. Special attention being given to the drainage, ventilation, and the general sanitary surroundings of the patient; the source of milk supply, the nature of the water supply, the number of children attending a particular school, and other details requiring observation; disinfectants are supplied gratis on application to the Sanitary Inspector, and the premises, bedding, and other materials disinfected in due course. The particular school authorities are notified in cases where the patient has recently attended school; it should also be added that the School Attendance Officer has instructions to notify the Medical Officer of Health of the existence of suspicious cases where no medical attendant has been called in. This is a most useful precaution.

Disinfection.—Dr Thresh's portable superheated steam Disinfector, the joint property of the two Urban and two Rural District Councils of Malton and Norton, has been used in all cases of reported infectious disease, and I have good reasons for stating that its use has checked the spread of infection.

Abstract.—An abstract of cases reported under the Infectious Diseases Notification Act, 1889; in operation since the 9th of November, 1891.

DISEASE.	1892	1893	1894	1895	1896	1897	1898	1899	1900
Scarlatina	35	12	11	12	5	5	5		13
Enteric Fever	12	4	4	6	2	2	16	0	1
Erysipelas	2	4	14	6	10	5	3	2	1
Diphtheria	1		8	3	1	1			1
Small-pox	2	5	1						
Puerperal Fever		1	1						
Continued Fever							5		
Totals	52	26	39	27	18	13	29	8	16

A few remarks upon the above table cannot fail to prove interesting:—

1892—Of the two cases of small-pox, one was imported from Batley, the other from Bradford. Enteric fever began in Newbeggin, probably from faulty drain. Only one death occurred in the whole 52 cases, and that was from Scarlatina.

1893 —First case of Small-pox traced to a tramp from Pontefract, January 27th, the next four contracted the disease from a female tramp at a common lodging-house, April 23rd. First Enteric case was imported from Leeds.

1894—Small-pox, one case only of mild type in Casual at Workhouse. Scarlatina introduced from Scarbro'.

1895 Diphtheria slight, membrane examined in one case, negative result; no examination in other two. Of six cases of Enteric Fever two were introduced and two notified as doubtful.

1896—Scarlatina imported, as also was the first case of Enteric Fever.

1897—Scarlatina imported, as also the two cases of Enteric Fever, one from Thirsk and the other from Scarboro'.

1898—Slight epidemic of Typhoid Fever arose from one case, patient returning home from the country. The first case of Scarlatina was imported from Hovingham, the second from Hambledon.

1899—Recrudescent Scarlatina. The last case of Enteric Fever notified November 8th, was undoubtedly contracted outoutside the district.

1900—Diphtheria verified by bacteriological examination. No other cases. Enteric Fever imported from York.

A careful perusal of the aforegoing table and remarks brings into prominence certain important facts, viz: that Small-pox was introduced by tramps, that Enteric Fever was for the most part imported, as also was Scarlatina, but not so distinctly traceable. Erysipelas, a distinct diminution in the number of cases reported. Typhus has vanished since 1891. No death is recorded from Typhoid Fever after 1891. Only one death is recorded from Measles for a like period. Small-pox disappears as a cause of death in 1894, the same may be said of Diphtheria in 1897 and of Scarlatina in 1896, whilst there are no deaths from notifiable diseases during the years 1897, 1898, 1899, 1900, certainly a fair record.

House Accommodation.—During the past ten years there has been a steady advance in the building of houses of the better and middle class description, the actual numbers being 5 at rentals from £50 to £20. 49 at rentals from £20 to £10, but only 15 at rentals under £10, these facts bear out my statements in this and previous Annual Reports. On the other hand, the demand for cottages for the working classes has not been met, consequently many of the workers within the district reside outside the district. The probable cause for this is that the land in this district is leasehold from Earl Fitzwilliam, and that it does not pay private individuals to erect cottage property to meet the requirements of the average labourer in the district. There still exists in the district many poor-class dwellings, with their typical sanitary defects, such as damp floors and walls, ill-lighted and badly ventilated rooms with low ceilings and insufficient capacity. These need careful inspection and report, so that they may be altered, closed, or removed, as the circumstances may demand. When it is remembered that some of the worst forms of disease are generated in, and propagated from, low class property, its demolition becomes a duty. Tuberculosis and inebriety are found together too often, and the origin of both may frequently be traced to the home environment. A part of the remedy lies in the adequate provision of houses fit for habitation; there is no sanitary provision of more importance than this.

It will be seen from a perusal of the following *resume* that something has been done in this district to meet present day requirements.

In June, 1894, I directed attention to various cases of overcrowding in the district, and pointed out the need of suitable houses for the working classes. Some correspondence took place between the Council and the Agent to Earl Fitzwilliam, but I was unable to report much progress in my Annual Report of 1895. The matter appeared to me urgent, and at a meeting of the Sanitary Committee, held on February 24th, 1896, I drew attention to the number of cottages unoccupied and out of repair, and suggested that the Surveyor should prepare a list of such, as also of sites where cottages had stood within the past twenty-five years, together with a schedule of obstructive buildings. The subject having been discussed, the committee unanimously recommended that such schedules be prepared. The Surveyor submitted the schedule at a meeting of the Sanitary Committee, held on March 23rd, 1896, and the matter was referred to a special sub-committee.

The information now placed before the Council clearly showed that no adequate provision had been made to meet the wants of the districts for some years by the building of cottage property.

In my monthly report for May, 1896, I gave a *resume* of my previous report for the past four years, and pointed out in some detail the requirements of an ordinary labourer's cottage, letting at a rental of from £7 to £10 per annum. The matter was referred to the before mentioned sub-committee.

In June, 1809, public opinion was rudely awakened by a prosecution for parental neglect. The evidence disclosed a most disgraceful state of overcrowding. The Bench expressed the hope that the attention of the Urban Sanitary Authority having been called to the case, steps would in future be taken to make such a state of things impossible. It is only fair to state that the Bench had no previous knowledge of the overcrowding in the district, nor was it aware of what had been done either by the sanitary officers or by the Council.

The sub-committee met on June 11th, 1899, and considered a lengthy communication from the Estate Office relating to the terms and conditions upon which cottage sites would be leased. A block plan was submitted, and the whole question carefully considered. At the subsequent meeting of the Sanitary Committee, it was proposed that the Council accept the terms and build cottages in batches of six. An amendment was thereupon proposed to the effect that the Council do build as proposed, providing private enterprise fails at the expiration of six months from this date (July 27th, 1896). The amendment was carried by a large majority. Private enterprise took up the scheme, and cottages were built in due course, with accommodation as follows:—Parlour and kitchen each 12ft. square, with scullery and pantry in the rear. Two bedrooms over parlour and kitchen, and an attic on top floor. The attic arrangement is adopted for the purpose of giving as much accommodation and air space in an economical manner as possible, and contains about 1,510 cubic feet of air space, whereas if a small bedroom had been provided over the scullery in the usual way only about half this quantity of air space would have been provided, and only one bed could have been contained therein. In the arrangement adopted, two full-size beds can be fixed in the attic, and one in each of the bedrooms, thus providing for separating the sexes as much as possible. The bedrooms are each provided with a fireplace, and an ample portion of each window is made to open for ventilation. Whether this class of house will directly relieve the overcrowding in the district is open to question, since experience shows that overcrowding mostly occurs in the families of the poorer labourer who is not able to pay a £10 or £12 annual rental.

Thirty-six cottages were built during the year 1897 with accommodation as stated above. The rental, £10 to £12 per annum, places such houses beyond the reach of the average labourer of the district, and it is precisely from this cause that overcrowding arises. The labourer, earning from fifteen to eighteen shillings per week, cannot pay more than from £5 to £7 per anuum for his house, and is perforce compelled to put up with a hovel where moral, mental, or physical health becomes impossible, nay more, such a place robs every child born in it of more than words can be made to express. The remedy lies in providing better houses and in closing those unfit for human habitation, the responsibility rests upon Sanitary Authorities and property owners. In a district such as this it ought not to be a difficult matter to build a cottage having living room and scullery downstairs, with three bedrooms above, to let at a rental of from £5 to £7 per annum. There are many sites where cottages have stood which now present unsightly ruins; might not small cottages replace these eyesores, and so add to the tidiness of the town and the happiness of its inhabitants.

Water Supply.—The Water Supply of the district is obtained from a deep well sunk in the middle Oolite. The position of the well (Lady Well), is to the East of the town of

New Malton, on the North bank of the River Derwent, and some little distance West of the Thirsk branch of the North Eastern Railway.

Having regard to the instructions of the Local Government Board which point out that "it should be remembered that these reports are for the information of the Board and County Council as well as of the Council of the District, and that a statement of the local circumstances and history of local sanitary questions, which may seem superfluous for the latter, may often be needed by the former bodies"; I trust under the circumstances you will extend to me your forbearance during a reiteration of facts which are perfectly familiar to you in connection with the subject of Water Supply.

In times past, of which I do not possess any record, the subject of the periodical discolouration of the town's water supply in times of flood, was a topic of exceeding interest and of seasonal periodicity, but nothing of importance seems to have resulted from these traditional discussions. In the year 1890, however, your predecessors, the then Local Board of Health appear to have had to deal with the water supply to your District on the ground of pollution of the Lady Well during times of flood. Advice was sought from special Water Engineers and the results of their investigations were embodied in the form of a special report on the subject. In the aforementioned report a gravitation scheme from Settrington Dale for Malton and Norton was recommended at an initial cost of £9,400, and at a working cost, including interest and redemption, of £563 2s 6d per annum., also a second or alternative scheme for Malton by boring at a point about 1,600 yards further West than the site of your present reservoir on the Castle Howard Road, at an initial cost of £6,600, and with a maintainence cost of £206 4s 0d, and repayment of capital and interest at 3½ per cent. per annum. £358 17s 6d making a total cost of £565 1s 6d.

Both these schemes stood in abeyance until 1893 when a visit was made to the town, Dr Bruce Low of the Local Government Board, in response to a memorial from several water consumers complaining of the pollution and discolouration of the water supply. The Local Board then gave instructions to the Surveyor (R. Richardson, C.E.,) and Medical Officer of Health (H. M. Holt, M.R.C.S., D.P.H., &c.,) to investigate and make full report on the matter.

On my appointment in December 1891, I had directed my attention at once to the subject of the town's water supply, and with the cordial co-operation of the Surveyor, facts were collected and recorded so that we were familiar with the matter when called upon to make a Special Report, such report was presented to the Council in December 21st, 1893, approved and adopted; the recommendations contained therein were carried out in 1894 and proved efficient. On Feb. 25th, 1895, the question of providing for a more ecenomic means of distribution was discussed, and a sub-committee formed to consider and report on the existing mode of pumping water and also as to the advisability of providing a more modern plant. On July 19th. 1895, the purchase of a new steam engine was recommended. On May 1st, 1896, Col. C. H. Luard, R.E., held an inquiry with regard to the application of the Malton Urban District Council for sanction to borrow money for works of Water Supply. After the inquiry and in company with the the local officials, Col. Luard visited the site; plans of which were subsequently transmitted to the Local Government Board. On July 27th, 1896. the Clerk laid before the meeting of the Water Supply Committee, a letter from the Local Government Board, transmitting therewith its formal sanction to the borrowing by this Council of the sums of £920 and £176 for the purposes of Water Supply; and before the end of the year new pumping machinery in the course of erection.

In my Annual Report for 1897 it was only necessary for me to direct attention to protecting the area of the well and pools from the visits of stray animals by erecting stronger fencing, and to recommend the filling up of the smaller pool area, which has been done.

My Annual Reports from 1898 to 1899, contain amongst other details the following facts which I take the liberty to briefly summarise:—

(*a*) That the Water Supply is all that could be desired, being pure, constant and copious.

(*b*) That the average Supply has been 36 gallons per head per day.

(*c*) That the average Supply per head per annum has been 131,400 gallons.

(*d*) That the condition of the well and surrounding pools has been perfectly satistactory, not the slightest discolouration having taken place.

(*e*) That floods have been frequent in the river basins around the Rye and Derwent.

I can only add to this Report for 1900, that you are to be congratulated upon having solved the difficulties of providing a perfect water supply for your District, but from my knowledge of the strata and surroundings of your well, I should advise careful superintendence and maintainance of the area, since in November last, certain points of weakness in the North bank passing between the clay trench and the pool were quite sufficient to discolour the latter, and thence cloud the water in the well. There is no need for the existence of the clay trench referred to, it should be filled up without delay, moreover, the North bank should be reformed at an early date. I am quite sure that you will give this matter tho attention it deserves.

Sewerage & Sewage Disposal.—The district is well adapted for drainage purposes by the natural formation of the land. The chief sewers are constructed of sanitary pipes of diameter varing from 6 to 18 inches according to the requirements of the area, and at the heads of the main sewers are placed flushing tanks of a capicity of about 4,000 gallons each, these are filled with water containing a disinfectant and are discharged twice a week, using something over 30,000 gallons of water.

The sewers are ventilated by means of vertical shafts leading from the crown of the sewer to surface gratings in the streets, as also by cast-iron pipes run up by the sides of the buildings and in other suitable positions.

The frequent flushings render the sewers free from deposit, whilst the number of inlets and outlets provide efficient means of ventilation.

In this connection I may mention that private drains are also frequently flushed when such a course seems desirable, and that the results are beneficial I have not the slightest doubt.

The system of disposal of sewage into cesspools which obtains amongst the residences situate on the Old Malton Road should be mentioned as a defective portion of the sewerage system of the town.

The cesspools which were not unfrequently met with in the district have for the most part been filled up and done away with. Drainage has been greatly improved in many instances, the pail system has almost entirely replaced the sunken ashpit system, whilst the better class of house has in addition adequate water closet accommodation of modern type.

Removal and Disposal of House Refuse.—The scavenging of the town is conducted at nights, from 10 p.m. to 5 a.m., and is for the most part on the pail system. Dry ashes are collected in carts, and excreta pails in covered van. Both are collected weekly and carted directly to the Scavenging Depot, where the ashes are screened, and the excreta pails emptied, cleansed and disinfected ; the contents are mixed with the dry ashes, stored under covered shed and sold to farmers for manure, and for which there is a constant and increasing demand.

The few existing ashpits are roofed over and are emptied periodically, either by the occupiers of the premises, or in default by the Council's nightmen.

Sale of Food and Drugs Act, 1875.—Samples of milk have been taken from time to time, and on analysis have proved satisfactory ; but samples of other substances to which the Act applies should be taken, since such action tends to detect and to prevent fraud. As far back as 1893, I stated in my Annual Report that certain imports for brewing and distilling purposes made fraud and adulteration easy operations, *e.g.*, the importation of maize for distilling purposes, "patent spirit" made in Germany for blending purposes, and at the same time pointed out the wrong done alike to farmer and consumer, and furthermore stated "If such beverages were made from home-grown grain only, and placed under the Merchandise Marks Act ; Agriculture in this country could not suffer, but might improve on its present condition. Undoubtedly there are many potent and hidden factors at work which time can only discover, and which legislation may or may not remedy." Although there are two large breweries in your district I think it fair to state that I have not observed any cases of those special forms of alcoholic neuritis which have been met with in other parts of the kingdom.

Dairies, Cowsheds, and Milk Shops Order, 1885.—Special attention has been given to this subject during the year with a view to prevent the spread of tuberculosis and other diseases among cattle, and from them to the human subject. Careful inspection of cowsheds have been made in order to ascertain the amount of cubic space, ventilation, lighting, drainage, and water supply The results of such inspection show that many of the buildings are ill-constructed, and far from meeting their present requirements much less fulfilling the conditions suggested by the Local Government Board. For the past ten years, however, steady improvement has been made in providing better accommodation for cattle throughout the district.

Common Lodging Houses.—The Common Lodging Houses have been duly inspected, and visited from time to time, in order to note whether due regard was being paid to the regulations in force for such places. I am pleased to report that the living and bedrooms were cleanly, well lighted and ventilated, so far as the structural arrangements of old houses of this class would allow. In the year 1894 I drew attention to the fact that Common Lodging Houses were generally to be found in old properties in low and densely populated neighbourhoods, that the mere registration of such properties enhanced their values, and that once the the registration was effected the power of the Sanitary Authority to withold or withdraw such registration was practically nil, and I submitted that the power to renew, take away, or withold such regulations should be at the pleasure of the Sanitary Authority.

My experience in this district enables me to state that the frequenters of Common Lodging Houses are more chargeable with the spread of disease than any other class.

Slaughter-houses.—It is of much importance that constant supervision should be exercised over Slaughter-houses in order that diseased animals should not be killed and prepared for human consumption, for it is admitted that nothing short of complete destruction of the whole carcass is a safe procedure in some cases, whilst only after the most careful inspection should portions of others be allowed to be used for human food. The keepers of such slaughter-houses should be under the Sanitary Authority, and required to report any doubtfnl animals to the Sanitary Officials before slaughter. This system does not prevail however in this district.

Bakehouses.—The bakehouses in the disirict seldom employ more than one man and a boy, and I have no reason to comment upon them further than to say they are well kept and in good order.

Canal Boats.—I gather from your Inspector's Report on Canal Boats that during the past year the "Hugh Fox" has been the only boat trading on the Derwent, having made six runs from the West Riding with cargos of coal, and that the navigation has been blocked below Sutton Locks by a sunken barge loaded with tiles. The "North Eastern" has been used exclusively on navigation works.

Inspection of District.—During the past year I have inspected the whole district and made special visits to portions thereof requiring my attention, and in this connection I must note that there is much that indicates sanitary progress of no mean order, information concerning which will be found in the body of this Report under the various sections dealing with special questions.

In conclusion I have to thank the members of the Council and officials for their careful consideration and co-operation in all matters relating to the sanitary welfare of the town and district.

I beg to remain,
Yours obediently,
HENRY MAINWARING HOLT.

January, 1901.

APPENDIX.

SCHEDULE OF NUISANCES,

From Inspector's Journal for year ending Dec. 31st, 1900.

DETAILS OF NUISANCES REPORTED.

Description of Nuisance.	Number Reported	No. abated	Number Promised Abatement	Total.
Asphalting (defective)	6	6		6
Ashpits (defective)	2	2		2
Buildings, &c. (dangerous)	5	4	1	5
Do. (insanitary)	2	2		2
Gullies (insanitary)	4	4		4
Overcrowding (dwellings)	2	2		2
Do. (Byres)	1	1		1
Piggeries (Insanitary)	1	1		1
Privies (insanitary)	1	1		1
Spouting (dangerous)	1		1	1
Do. (defective)	1	1		1
Sinks (defectively trapped)	7	4	3	7
Yard Areas (insanitary)	3	2	1	3
Totals	36	30	6	36

ROBT. RICHARDSON,

Sanitary Inspector.

METEOROLOGICAL RECORD, 1900.

Per E. K. SPEIGELHALTER, MALTON.

RAINFALL.

	Total Depth. Inches.	Greatest fall in 24 hours. Depth.	Date.	No. of Days on which ·01 or more fell.
January	3·54	1·00	8	12
February	3·46	0·75	14	20
March	1·09	0·24	18	13
April	1·59	0·35	16	10
May	1·63	0·50	8	10
June	2·40	0·40	23	13
July	1·52	0·30	20	11
August	3·84	1·20	3	12
September	1·06	0·35	7	10
October	4·47	1·30	27	18
November	2·73	1·00	4	16
December	2·93	0·60	31	11
Total	30·26			156

BAROMETIC PRESSURE.

	Absolute Max in.	Absolute Min. in.		Mean	Total Range
January 28	30·30	29·10	7	29·74	1·20
February 5	30·10	28·30	9	29·57	1·80
March 12	30·40	29·40	18	29·64	1·00
April 18	30·30	29·20	3	29·78	1·10
May 16	30·10	29·30	25	29·76	0·80
June 16	30·20	29·30	23	29·75	0·90
July 11	30·10	29·70	4	30·86	0·40
August 29	30·35	29·30	3	29·84	1·05
September 26	30·40	29·60	15	30·00	0·80
October 10	30·40	29·30	27	29.80	1·10
November 3	30·10	29·20	12	29·60	0.90
December 11	30·12	29·23	29	29·63	0·87
	30·25	29·24		29·83	

Mean Max. in July 30·86. Mean Min. Monthly, February, 29·57
Absolute Max. March & October 30·40. Absolute Min. 28·30, February 9th.

TEMPERATURES.

	Absl. Max Date	Deg.	Absl. Min. Date	Deg.	Mean Max	Mean Min.	Mean and Min.	Max Mean Air	Mean Daily Range	Total Range	Dew Point	Rel. Htv.	No. nights 32 & blw.
Jan	24	51°	7	29·1	42·5	29·8	36·1	37·3	13·2	32°	29·8	76	24
Feb.	22	55°	14	0·0	40·2	21.7	32·4	34·8	15·5	55°	29·4	80	23
Mar.	14	55°	17	14°	46·3	28·3	37·5	39·4	17·5	39°	32·8	78	24
Apl.	21	75°	26	17°	55·3	32·6	43·9	48°	22·7	54°	49·6	73	15
May	27	68°	17	27°	57·8	38·1	47·9	52°	19·7	41°	43·2	72	7
June	12	88°	39	36°	70·4	45·1	57·7	62·4	25·2	52°	51·3	68	0
July	11	87·5	8	35°	76·2	50·2	63·2	67°	26°	52·5	58°	72	0
Aug.	18	79°	30	36°	69	46·8	57·9	60·9	22·2	43	51·9	74	0
Sept.	5	74°	20	32°	64·8	42·3	54·5	57·8	22·5	42	49·1	75	2
Oct.	10	69°	17	23°	56·8	35·1	45·8	48·5	21·7	44°	42·6	80	13
Nov.	1	65°	10	25°	48·5	36·2	42·3	44·2	12·3	40°	37·1	77	9
Dec.	11	55°	24	24°	47·6	34·8	41·2	43·4	12·8	31.	36·5	79	9

Absolute Max on June 12th, 88°. Mean Monthly Max., July, 76° Absolute Min on Feb 14th, 0·0, Mean Monthly Min., Feb 24·7,

G. J. Jones, "Gazette" Office, Wheelgate, Malton,